JFSP Project Highlights

Research Supporting Sound Decisions

August 2004

The JFSP, a partnership of six federal wildland fire and research organizations, provides scientific information and support for fuel and fire management programs.

JFSP Contacts

Erik Berg
Program Manager
208-387-5349

Becky Jenison
Program Assistant
208-387-5958

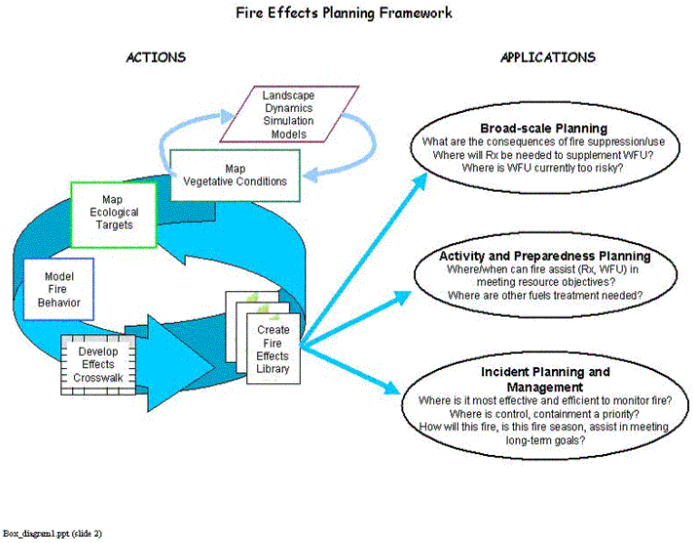
Tom Wordell
Fire Technology Transfer Specialist
208-387-5865

jfsp.nifc.gov

Fire Effects Planning Framework: Helping to Identify the Benefits and Risks of Fire

The goal of this project, co-funded by JFSP and NFP, is to help managers determine (quantify and map) where and under what conditions fire may create benefits or pose threats to identified ecological conditions or management targets. To facilitate this, we developed and illustrated a framework with which users can identify and prioritize areas on the landscape needing fuel treatment and then evaluate the effectiveness of alternative fuel reduction strategies for meeting long-range management objectives, including reduction of fire risk. .

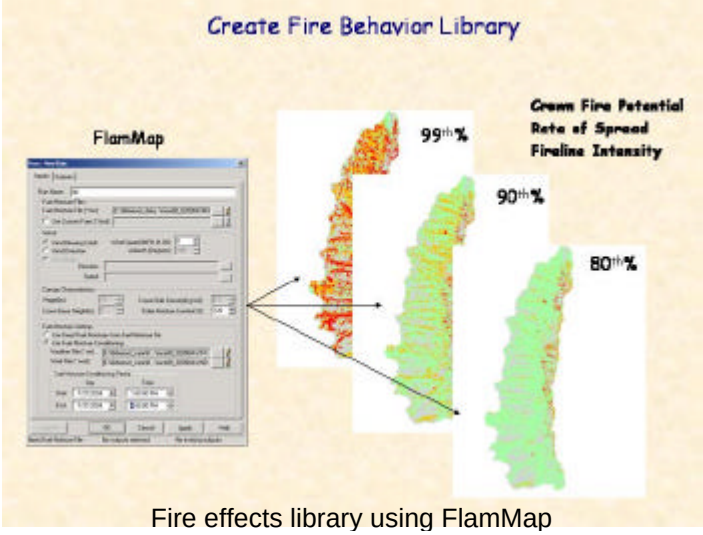
The Fire Effects Planning Framework (FEPF) links existing tools and information together and guides managers in the development of information on the risks and benefits of wildland fuels management. FEPF is not a stand-alone tool, but a framework that explains how to sequentially link state-of-the-art, publicly available analysis tools, data, and knowledge to generate GIS-based information for a variety of planning scales from long-range to site-specific. The basic process is to:



Box_diagram1.ppt (slide 2)

- Map existing conditions of each planning target
- Model fire behavior
- Identify how fire behavior will affect targeted resource and capture this in 'crosswalk' databases
- Use the crosswalks to build GIS map libraries that display expected effects of fire on social and ecological values
- Use resulting libraries to identify treatment priority areas, analyze alternative strategies, identify where fire is likely to provide benefits or pose risks to meeting objectives, and provide other important pre-planning information.

There are multiple ways to utilize FEPF and numerous tools one can build into the framework. The process can use both stand-based and landscape-level models and takes advantage of models currently in use by regional fire and resource planners (such as FlamMap and SIMPPLLE). Where these tools are unavailable, others may be substituted. FEPF provides an overview and procedural approach for integrating existing programs in order to provide information and outputs not available from a single tool.



Fire effects library using FlamMap

A User's Guide for FEPF will soon be available as a General Technical Report (GTR).

Principal Investigators:

- Anne Black, Post-doctoral Ecologist
- Carol Miller, Research Fire Ecologist
- Peter Landres, Research Ecologist

Reference:

Miller, Carol and Landres, Peter. 2004. Exploring information needs for wildland fire and fuels management. RMRS-GTR-127. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 36 p. http://www.fs.fed.us/rm/pubs/rmrs_gtr127.html

You can obtain further information at:
http://leopold.wilderness.net/research/fprojects/F001.htm

Download a printable version of this JFSP Project Highlight at
http://jfsp.nifc.gov/news/doc/highlight.pdf

Download previous JFSP Project Highlights at
http://jfsp/nifc.gov/news/archives.htm